REMARKS

Claims 6, 8, 10 and 11 have been amended. Claims 3, 4, 12 and 13 have been canceled. Claims 14 and 15 have been added. Minor corrections have been made to the specification. Reexamination and reconsideration are respectfully requested.

Applicants have canceled original independent claim 3 and have replaced with it new independent claim 14, which is believed to obviate the indefiniteness rejections noted in the Office Action. Further, dependent claim 4 has been rewritten as new dependent claim 15, and original claims 6, 8 and 10-11 have been amended to clarify the method being claimed. In view of the foregoing, Applicants respectfully submit all pending claims are now in compliance with the strictures of 35 U.S.C. § 112.

Applicants have made several minor amendments in the specification to correct typographical errors relating to the reference numbers, as well as minor grammatical errors. No new matter has been added.

In the Office Action, independent claim 3 and dependent claims 6 and 12 were rejected under 35 U.S.C. § 102(e), as being anticipated by Toda et al. (US 6,672,769). No prior art rejection was applied to Applicants' dependent claim 4.

Accordingly, Applicants have replaced original claim 3 with new independent claim 14, which includes features of original dependent claim 4. In particular, Applicants claim 14 recites a method of forming a female spline of a

hub unit, the hub unit comprising a hub having an integral flange for attaching a wheel and a shaft portion with a hole extending therethrough in an axial direction. A rolling bearing is fitted and attached on the shaft portion with an outer end of an inner race being fixed at an outer end of the shaft portion in the axial direction by plastic deformation via one of caulking and clinching. The method of forming such a hub unit comprises the steps of:

(i) forming a cylindrical hole (3f'; Fig. 9A) through a shaft portion (3c'; Fig. 9A) of a work piece for the hub by cutting;

(ii) applying a radially inward force over an entire periphery of the shaft portion of the work piece to reduce a diameter of the hole by a predetermined amount, said predetermined amount being an estimated amount for cancelling deformation otherwise caused in forming the female spline of the hub unit as a final product (page 22, lines 7-15);

(iii) roughly processing the female spline by broaching the hole (3g') of the work piece while continuously applying the radially inward force over the entire periphery of the shaft portion of the work piece (page 22, lines 16-20);

(iv) releasing the application of the radially inward force on the shaft portion of the work piece (page 22, lines 17-20);

(v) fitting and attaching the bearing on the shaft portion of the work piece with an axial outer end of the inner race (17; Fig. 3A) being fixed at an

axial outer end portion of the shaft portion (3d; Fig. 3A) by plastic deformation via one of caulking and clinching; and

(vi) subsequently, finishing the female spline by one of semi-dry and dry broaching on the hole of the shaft portion on which the female spline has been roughly processed (page 21, lines 17-24).

As requested by the Examiner, Applicants have annotated the claim to reference the exemplary embodiment described in the specification. Of course, the annotations should not be construed in any way to limit the claim scope. Rather, the annotations reference the exemplary embodiment described on page 21, line 1 through page 24, line 20.

Accordingly, Applicants' invention recited in claim 14, includes the feature of claim 4 wherein a radially inward force is applied over an entire periphery of the shaft portion of the work piece to reduce a diameter of the hole by a predetermined amount, said predetermined amount being an estimated amount for canceling deformation otherwise caused in forming the female spline of the hub unit as a final product.

In contrast, neither Toda, nor any of the other art of record, describe, suggest or teach Applicants' novel method. By reducing the diameter of the hole by a predetermined amount by applying the radially inward force, the deformation otherwise caused in forming the final product is advantageously

canceled. None of the prior art of record disclose, teach or suggest such a method.

In that regard, the prior art cited, Mott (US 5,011,302), merely discloses a ring or bearing pack 14 that is press-fit onto a hub mounting surface 18 so as to prevent a hole of the hub from enlarging over a predetermined level. This, of course, is vastly different from Applicants' claimed method.

In view of the above, Applicants respectfully submit new independent claim 14, along with dependent claims 15, 6, 8 and 10-11 are patentable over the art of record. An early notice to that effect is solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #038919.56418US).

Respectfully submitted,

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